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## AMENDED CLAIMS

[received by the International Bureau on 10 April 2000 (10.04.00); original claims 1-16 replaced by new claims 1-9 (2 pages)]

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- 1. Device for removing biomolecules comprising an ultrafiltration module optionally upstream and in series with a dialysis module, characterized in that this device further comprises a column containing an adsorbent gel combining the properties of size exclusion and affinity chromatographies, said adsorbent gel consisting essentially of a polysaccharide matrix onto which is grafted a polymer coupled to an affinity ligand and having an adjustable cut-off of between 2 kDA and 60 kDa, said column being mounted branching from said ultrafiltration module.
- 2. Device according to claim 1, characterized in that the adsorbent gel consists of a matrix based on an agarose derivative onto which is grafted polyethylene glycol coupled to iminodiacetic acid itself coupled to copper(I) ions and having a cut-off of 20 kDa.
- and purifying for separating Device 3. biomolecules comprising а column containing properties of size combining the adsorbent gel exclusion and affinity chromatographies, said consisting essentially of a polysaccharide matrix onto which is grafted a polymer coupled to an affinity ligand and having an adjustable cut-off of between 2 kDa and 60 kDa, said column being optionally mounted branching from a filtration module.
  - 4. Device according to claim 3, characterized in that the adsorbent gel consists of a matrix based on an agarose derivative onto which is grafted polyethylene glycol coupled to iminodiacetic acid itself coupled to copper(I) ions and having a cut-off of 20 kDa.

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- 5. Device according to claim 2 or claim 4, characterized in that the biomolecule is serum  $\beta 2$ -microglobulin.
- 6. Use of the device according to claims 1 to 5 for removing biomolecules from blood, with the exception of extracorporeal dialysis.
- 7. Use according to claim 6, characterized in that the device comprises an adsorbent gel consisting of a matrix based on an agarose derivative onto which is grafted polyethylene glycol coupled to iminodiacetic acid itself coupled to copper(I) ions and having a cutoff of 20 kDa.
  - 8. Use according to claim 7, characterized in that the biomolecule is serum  $\beta 2$ -microglobulin.

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9. Device according to any one of claims 1 to 5, characterized in that the device is an extracorporeal dialysis system.